

Claims

1. A composition for production of a sterilizer, having a water content of 1 to 25% by weight and comprising (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group and (B1) hydrogen peroxide.

2. A composition for production of a sterilizer, which comprises (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group and (B1) hydrogen peroxide or (B2) an inorganic peroxide releasing hydrogen peroxide in water wherein the molar ratio of (A) to (B1) or the molar ratio of (A) to (B1) generated from (B2), that is, $(A)/(B1)$ is 1/10 to 20/1, the composition for production of a sterilizer being used as an aqueous solution prepared by adjustment to pH 8 to 12 and then to pH 1 to less than 7.

3. A composition for production of a sterilizer, obtained by compounding (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group and (B1) hydrogen peroxide or (B2) an inorganic peroxide releasing hydrogen peroxide in water wherein the molar ratio of (A) to (B1) or the molar ratio of (A) to (B1) generated from (B2), that is, $(A)/(B1)$ is 1/10 to 20/1, the composition for production of a sterilizer being used as an aqueous solution prepared by adjustment to pH 8 to 12 and then to pH 1 to less than 7.

4. A sterilizer composition having a pH value of 1 to

less than 7 at 25°C and comprising water and an organic peracid obtained by reacting (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group with (B1) hydrogen peroxide in an (A)/(B1) molar ratio of 1/10 to 20/1 in water at pH 8 to 12.

5. The sterilizer composition according to claim 4, which is obtained by using the composition for production of a sterilizer according to claim 1.

6. The sterilizer composition according to claim 4 or 5, wherein the content of hydrogen peroxide is 0.5 wt% or less.

7. The composition according to any one of claims 1 to 6, wherein the polyhydric acid constituting (A) is a C2 to C12 polyhydric alcohol.

8. The composition according to any one of claims 1 to 7, wherein the organic acid constituting (A) is a C1 to C8 fatty acid.

9. The composition according to any one of claims 2, 3, 7 and 8, wherein (B2) is an inorganic peroxide selected from the group consisting of sodium percarbonate and sodium perborate.

10. A method of sterilizing a material to be sterilized, which comprises contacting, with a material to be sterilized, an aqueous solution containing an organic peracid obtained by reacting (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group with (B1) hydrogen peroxide in an (A)/(B1) molar ratio of 1/10 to 20/1 in water at pH 8 to 12, and then adjusting the reaction

system to pH 1 to less than 7.

11. The sterilizing method according to claim 9, wherein the aqueous solution is obtained by using the composition according to any one of claims 1 to 9.

12. The sterilizing method according to claim 10 or 11, wherein the content of hydrogen peroxide is 0.5 wt% or less.

13. A process for producing an organic peracid, which comprises a step of reacting (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group with (B1) hydrogen peroxide in an (A)/(B1) molar ratio of 1/10 to 20/1 in water at pH 8 to 12, and then adjusting the reaction system to pH 1 to less than 7.

14. A process for producing a sterilizer composition, which comprises a step of reacting (A) an ester of a polyhydric alcohol and an organic acid having a hydrocarbon group which may have a hydroxyl group with (B1) hydrogen peroxide in an (A)/(B1) molar ratio of 1/10 to 20/1 in water at pH 8 to 12, and then adjusting the reaction system to pH 1 to less than 7.

15. The process according to claim 13 or 14, wherein (A) and (B1) are brought about as a liquid composition with a water content of 1 to 25% by weight comprising (A) and (B1).

16. The process according to claim 14 or 15, wherein the content of hydrogen peroxide in the sterilizer composition is 0.5 wt% or less.

17. The process according to any one of claims 13 to

16, wherein the polyhydric alcohol constituting (A) is a C2 to C12 polyhydric alcohol.

18. The process according to any one of claims 13 to 17, wherein the organic acid constituting (A) is a C1 to C8 fatty acid.

19. The process according to any one of claims 13 to 18, wherein the reaction of (A) with (B1) in water at pH 8 to 12 is carried out at 5 to 50°C for 1 to 120 minutes.

20. Use of the composition for production of a sterilizer according to any one of claims 1 to 3 for production of a sterilizer.

21. Use of the sterilizer composition according to any one of claims 4 to 6 as a sterilizer.